

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-006430**Date Inspected:** 22-Apr-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Chen Xi**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** crossbeams**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Steve Hall was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

**OBG cross beam CB3**

During random in process visual inspection of above mentioned cross beam, this Quality Assurance Inspector (QA) observed that the contractors personnel have welded joints not detailed on the drawings. The joints are located on the fit lugs joining the bottom panel stiffeners to the floor beam diaphragm web. This condition exists on four of the fit lugs on floor beam diaphragm identified as FB209A. This diaphragm is located toward the south end of the cross beam. See attached photo. AWS D1.5 2002 section 3, paragraph 3.1.5 states "welds shall be prohibited on the work except as follows: (2) All welds detailed on the drawings. (3) Repair welds authorized by this code. (4) Other welds approved by the engineer". This QA informed the contractors QC identified as Mr. Shen Xuejun and ABF QA inspector identified as Mr. Kelvin Cheung of this issue and informed both parties that an incident report would be forth coming.

**OBG cross beam CB5**

During random in process visual inspection on the above mentioned cross beam this Quality Assurance Inspector observed a fillet weld joint root open in excess of the tolerances specified in AWS D1.5 2002. The joint

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in question is a web to flange fillet weld joint on floor beam identified as FB204 inside of cross beam CB5. The root opening measures approximately 12mm. AWS D1.5 2002 section 3, paragraph 3.3.1 states "The parts to be joined by fillet welds shall be brought into as close contact as practicable. The root opening shall not exceed 5mm". See attached photo. This QA informed the contractors QC identified as Mr. Shen Xuejun and ABF QA inspector identified as Mr. Noe Basiola of this issue and informed both parties that an incident report would be forth coming.

OBG cross beam CB4

This QA observed ZPMC Non Destructive Testing (NDT) sub contractor perform Ultrasonic Testing (UT) on Complete Joint Penetration (CJP) weld joining the side panel to the bottom panel. This QA noted that no other significant work was being performed on this cross beam during the time QA was present.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.



### Summary of Conversations:

As mentioned above.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang (15000422372), who represents the Office of Structural Materials for your project.

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| <b>Inspected By:</b> | Hall,Steven | Quality Assurance Inspector |
| <b>Reviewed By:</b>  | Prue,Erik   | QA Reviewer                 |

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